

STATE OF LOUISIANA
PARISH OF EAST BATON ROUGE

Gene Therapy 08/09 EB

**GENE THERAPY RESEARCH PROJECT
COOPERATIVE ENDEAVOR AGREEMENT**

THIS COOPERATIVE ENDEAVOR AGREEMENT made and entered into this 1st day of July, 2008, by and between the **LOUISIANA BOARD OF REGENTS** of the State of Louisiana officially domiciled at Baton Rouge, Louisiana 70804, hereinafter referred to as "Regents," and **LOUISIANA GENE THERAPY RESEARCH CONSORTIUM, INC.**, officially domiciled at New Orleans, Louisiana, hereinafter referred to as "Consortium".

WITNESSETH:

WHEREAS, Article VII, Section 14(c) of the Constitution of the State of Louisiana provides that "for a public purpose, the state and its political subdivisions...may engage in cooperative endeavors with each other, with the United States or its agencies, or with any public or private association, corporation, or individual,"

WHEREAS, funds for this Cooperative Endeavor Agreement were appropriated by the Legislature in Act 19 of the 2008 Regular Session to the Regents for support of the gene therapy research initiative;

WHEREAS, the agency desires to cooperate with the Consortium in the implementation of the Project as hereinafter provided;

WHEREAS, the State, the Regents, and the Consortium jointly desire to continue supporting the gene therapy research initiative and nationally recognized gene therapy research, which will develop, support, leverage and expand gene therapy medical research throughout Louisiana and create a critical mass of scientists, state-of-the-art laboratories and research equipment in Louisiana, which will attract millions of dollars of research grants from sources outside Louisiana;

WHEREAS, gene therapy research will revolutionize medicine in the coming decades and as a result of this research, the health and the health care options of all of the people of Louisiana will improve based upon the advances in gene therapy by Louisiana scientists;

WHEREAS, from the advances of the basic science of gene therapy, incentives that arise will lead to the formation of new start-up companies and larger pharmaceutical and biotechnology companies will capitalize on the intellectual property and resources of these startup companies and create a durable and substantial economic impact on Louisiana;

WHEREAS, the natural outgrowth of an active and aggressive research effort in gene therapy will be the establishment of a new, stable and high-wage industry within Louisiana;

NOW, THEREFORE, for and in consideration of the mutual covenants herein contained, the parties hereto agree as follows:

Regents and the Consortium agree to proceed with all services necessary to the performance in proper sequence and in the time specified, of all items of the work for the project as hereinafter set forth and as more specifically outlined and detailed in the Scope of Services.

PROJECT IDENTITY

This Cooperative Endeavor Agreement will be identified as the Gene Therapy Research Project with the Cooperative Endeavor Agreement number as set forth above. All correspondence submitted to Regents in connection with this agreement shall be identified by this Cooperative Endeavor Agreement number.

AGREEMENT TERM

The term for the fulfillment of services to be performed pursuant to this Cooperative Endeavor Agreement shall be from July 1, 2008, through June 30, 2011.

This Cooperative Endeavor Agreement term is subject to and contingent upon:

- A. Availability of state funds from the Legislature provided to the Regents for Gene Therapy.
- B. The Consortium making satisfactory progress toward achieving the goals and objectives of this Cooperative Endeavor Agreement. Satisfactory progress shall be determined from the information provided to the Regents as stipulated in the Deliverables Section of this Agreement.

SCOPE OF SERVICES

The Consortium shall provide for a committed, active, statewide partnership of academic institutions, governmental agencies, and the business community, in support of efforts to establish Louisiana as a premier site for genetics research and related commercial development. The Consortium will seek to expand and enhance gene therapy research, provide job, career, and business opportunities within the fields of genetics research, gene therapy technologies and clinical applications, and support the development of a meaningful gene therapy research sector within the Louisiana economy.

GOALS AND OBJECTIVES

The Goals and Objectives of this Cooperative Endeavor are:

- Establish the Consortium as a national and international leader in research on new therapies of important human diseases using genes, gene delivery, and adult stem cells.
- Create a critical mass of researchers, external grant funding, cutting-edge pre-clinical and clinical research, and research infrastructure through effective collaboration of the Consortium members.
- Enhance the development of the biotechnology sector and increase the level of biotechnology sector employment in the Louisiana economy.
- Serve as an educational and information resource for the state on gene and adult stem cell therapies.

DELIVERABLES

The Consortium shall:

- Assist its member institutions to secure faculty, support staff and research infrastructure which will result in growth of research grants, publications and collaborations.
- Attract business interests and development within the gene research and therapy and biotechnology sectors of the economy through the development of gene research capability and expertise.
- Support efforts of member institutions to further integrate genetics research and training into their curriculums and provide opportunities for general education efforts on behalf of genetics and gene research.
- Provide a comprehensive annual budget for the appropriated funding, attached hereto as Exhibit "A" which supports the goals and objectives, and including measures of performance, attached hereto as Exhibit "B" and as approved by the Regents Project Director.
- Provide semi-annual written reports to the Board of Regents on activities, accomplishments, and performances of the Gene Therapy Research Project consistent with the scope of services for the project and the goals and objectives specified herein. These reports shall review and accepted by the Regents Project Director.
- Maintain a system of accounting and financial controls adequate to assure the availability and accuracy of cost and financial records and in accordance with generally accepted accounting principles.

MONITORING PLAN

The Contract Monitor and Regents' Project Director for the Gene Therapy Project for this Cooperative Endeavor is Donald J. Vandal, Board of Regents Deputy Commissioner for Finance and Administration. He will consult at least quarterly with the key personnel of the Consortium to review activities and progress toward Consortium goals and objectives.

The Contract Monitor will review the semi-annual written reports, assess the performance of the Consortium, and advise their performance to the Regents

KEY PERSONNEL

The Consortium will designate Dr. Sandra Roerig and Dr. Alan Miller as the Project Co-Directors for this Agreement and, as such, will be responsible for insuring the work to be performed on this Cooperative Endeavor Agreement. The Consortium shall not replace them without the prior written approval of the Regents Project Director. The Consortium Project Co-Directors may delegate their responsibility to Mr. Steve Moye, President & CEO of the Consortium.

COMPENSATION

Regents agrees to pay and Consortium agrees to accept pursuant to this Cooperative Endeavor Agreement an amount not to exceed a total of **THREE MILLION SIXTY SIX THOUSAND, TWO HUNDRED FOURTEEN (\$3,066,214.00) DOLLARS AND NO/100**, funded by Act 19 of the 2008 Legislature for the Gene Therapy Research Project. Regents will pay to Consortium in subsequent year's amounts appropriated by the Legislature to Regents for support of the Gene Therapy Initiative.

This cooperative endeavor agreement or any subsequent amendment to this cooperative endeavor agreement is not effective until approved by the Director of the Office of Contractual Review in accordance with La R.S. 39:1502.

PAYMENTS

Payments totaling \$3,066,214 by Regents to the Consortium for the fiscal year commencing July 1, 2008, under the terms of this Cooperative Endeavor Agreement shall be made upon submission of invoices by the Consortium to Regents in accordance with the following schedule:

<u>Payment Number</u>	<u>Payment Date</u>	<u>Payment Amount</u>	<u>Initials (for BOR use)</u>
Payment 1	Upon execution of agreement	\$766,554	
Payment 2	October 1, 2008	\$766,554	
Payment 3	January 1, 2009	\$766,554	
Payment 4	April 1, 2009	\$766,552	

No State funds provided pursuant to this agreement shall be paid for any one project in excess of the amount stated in the Comprehensive Budget attached as Exhibit A, without the prior written consent of the Regents' Contract Monitor.

For each additional fiscal year during the term of this Cooperative Endeavor Agreement, quarterly disbursements shall be made based upon appropriations from the legislature.

A final financial report of all activities and expenditures shall be submitted to Regents within 60 days of termination of this Cooperative Endeavor Agreement.

EXPENDITURES OF FUNDS

The funds shall be expended for the purposes set forth in the Scope of Services and in accordance with the administration budget submitted to Regents. The Consortium shall be entitled to amend the submitted administration budget upon written notification to Regents. Any amendment to the budget exceeding ten (10%) percent of the annual appropriation shall require the consent of the Regents Project Director.

The funds designated for fulfillment of services to be performed under the terms of this Cooperative Endeavor Agreement shall be expended or encumbered by the end of the Cooperative Endeavor Agreement term. All fund unobligated as of the termination of this Agreement shall be returned to Regents unless specifically approved by Regents and the Division of Administration.

ALLOWABLE COSTS

Allowable costs under this project shall be determined in accordance with the provisions of LSA-R.A. 39:1521, incorporated herein by reference, and in accordance with other applicable state laws.

PUBLIC LIABILITY

The Consortium shall indemnify and hold Regents harmless against any and all claims, demands, suits, and judgments of the sums of money to any party for loss of life or injury or damage to person or property growing out of, resulting from, or by reason of, any negligent act or omission, operation or work of the Consortium or its employees while engaged upon or in connection with the services required or performed by the Consortium hereunder.

ASSIGNABILITY

The Consortium shall not assign any interest in this Cooperative Endeavor Agreement and shall not transfer any interest in the same (whether by assignment or novation), without the written consent of Regents thereto; provided, however, that all claims under this cooperative Endeavor Agreement may be assigned to its bank, trust company, or other financial institution with such approval. Notice of any such assignment or transfer shall be furnished promptly to Regents and the Director of the Office of Contractual Review.

SUCCESSORS AND ASSIGNS

The Cooperative Endeavor Agreement shall be binding upon the successors and assigns of the respective parties hereto.

CLAIMS FOR LIENS

The Consortium shall be solely liable for and shall hold Regents harmless from any and all claims or liens for labor, services, or materials furnished to the Consortium in connection with the performance of its obligations under this Cooperative Endeavor Agreement.

COMPLIANCE WITH LAWS

The Consortium agrees to comply with all the applicable federal, state, and local laws and ordinances, as shall all others employed by the same in carrying out the provisions of this Cooperative Endeavor Agreement.

AUDITORS

The Regents, as well as the Legislative Auditor of the State of Louisiana and the Office of the Governor, Division of Administration shall be entitled to audit the books, documents, papers, and records of the Consortium which are reasonably related to this Cooperative Endeavor Agreement.

The Consortium shall maintain all books, documents, papers, accounting records, and other evidence pertaining to costs incurred, and shall make such materials available at all reasonable times during the Cooperative Endeavor Agreement period and three (3) years from the final date of the Cooperative Endeavor Agreement term, as stipulated in the Agreement Term section of this agreement, for inspection by the Regents, the Legislative Auditor of the State of Louisiana, and the Office of the Governor, Division of Administration. Copies thereof shall be furnished if requested.

The Consortium shall be accountable for the expenditure of the appropriated funds provided by this Cooperative Endeavor Agreement. Any disallowed expenditures pursuant to a ruling through audit exception or some other appropriate means will be returned by the Consortium thru Regents to the State.

PAYMENT OF TAXES

The Consortium shall be responsible for payment of all taxes for funds received from this Cooperative Endeavor Agreement under IRS Number 72-1470887.

TERMINATION FOR CONVENIENCE OR CAUSE

This Cooperative Endeavor Agreement may be terminated at any time for any reason with the written consent of both parties. This Cooperative Endeavor Agreement may also be terminated by Regents upon thirty (30) days written notice. The Consortium shall be entitled to payment for deliverable in progress, to the extent work has been performed satisfactorily.

The Regents may terminate this agreement for cause based upon the failure of Consortium to comply with the terms and/or conditions of the contract; provided that the Regents shall give Consortium written notice specifying Consortium's failure. If within thirty (30) days after receipt of such notice, Consortium shall not have either corrected such failure or, in the case which cannot be corrected in thirty (30) days, begun in good faith to correct said failure and thereafter proceeded diligently to complete such correction, then the Regents may, at its option, place Consortium in default and the agreement shall terminate on the date specified in such notice. Consortium may exercise any rights available to it under Louisiana law to terminate for cause upon the failure of the Regents to comply with the terms and conditions of this contract; provided that Consortium shall give the Regents written notice specifying the Regents' failure and a reasonable opportunity for the Regents to cure the defect.

In the event of termination at any time for any reason and subject to any proprietary rights of any third parties, copies of all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, reports, and other prepared materials developed with these state funds shall be provided to Regents, upon written request. The Consortium shall return all payments made less allowable costs incurred to the date of termination, including any non-cancellable commitments.

OWNERSHIP

All records, reports, documents and other material delivered or transmitted to the Consortium by the State shall remain the property of the State, and shall be returned by the Consortium to the State, at the Consortium's expense, at termination or expiration of this agreement. All records, reports, documents, or other material related to this agreement and/or obtained or prepared by the Consortium in connection with performance of the services contracted for herein shall become the property of the State, and shall, upon request, be returned by the Consortium to the State at the Consortium's expense at termination or expiration of this agreement.

FISCAL FUNDING

The continuation of this agreement is contingent upon the appropriation by the Legislature of funds to fulfill the requirements of this agreement. If the Legislature fails to appropriate sufficient monies to provide for the continuation of the agreement, this agreement shall terminate on the date of the beginning of the first fiscal year for which funds are not appropriated.

Additionally, if such appropriation is reduced by veto of the Governor or by any means provided in the Appropriations Act to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction would be to provide insufficient or a lesser amount of monies for the continuation of the agreement in its original form, then the Regent shall terminate this agreement or amend it to conform to the availability of funds resulting from such action.

BIDS

The Consortium agrees, whenever practically possible, to solicit bids for the services, materials and other expenses required to administer the projects outlined in this Agreement. The Consortium shall maintain a procurement file relative to the necessary acquisition of goods and services. Any re-grants by the Consortium to other entities or agencies will not require solicitation bids. However, the re-grantee will be required to adhere to this solicitation requirement.

DISCRIMINATION CLAUSE

The Consortium hereby agrees to comply throughout the term of this Cooperative Endeavor Agreement with all applicable state and federal laws and regulations including the following: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990. The Consortium further agrees not to discriminate in this employment practices, and will render services under this Cooperative Endeavor Agreement without regard to race, color, religion, sex, national, origin, veteran's status, political affiliation, disabilities, or sexual orientation. By signing this Cooperative Endeavor Agreement, the signatories certify that the Gene Therapy Research Project is in compliance with all other applicable federal and state laws and regulations.

Any act of discrimination committed by the Consortium, or failure to comply with these statutory obligations when applicable, shall be grounds for termination of this Cooperative Endeavor Agreement.

DIRECT APPROPRIATION CLAUSE

The Consortium acknowledges that this contract is funded wholly or in part with a specific appropriation added in the executive budget process. The Consortium agrees this specific appropriation is not a part of State annual budget request or normal operating budget. As such, the Consortium further agrees that Regents is not responsible for requesting this specific appropriation in the future. The Consortium acknowledges that requesting future funding is the responsibility of the Consortium. Additionally, the Consortium acknowledges that the funding for this contract is subject to legislative or executive changes such as mid-year budget reductions ordered by the Governor.

AMENDMENTS

No amendment (e.g., changes in total funds allocated or duration of the agreement) shall be effective unless it is in writing, signed by duly authorized representatives of both parties

Additionally, requests to amend the termination date of this agreement must be received by Regents at least ninety (90) days prior to the termination date of the original Cooperative Endeavor Agreement, or the most recent amendment to this agreement, whichever is appropriate. Requests for amendments (e.g., in duration or to change the Project Director) must be submitted separately from any other required reports.

REGENTS AND THE CONSORTIUM REPRESENT THAT THIS COOPERATIVE ENDEAVOR AGREEMENT SUPERSEDES ALL PROPOSALS, ORAL AND WRITTEN, ALL PREVIOUS CONTRACTS, AGREEMENTS, NEGOTIATIONS, AND ALL OTHER COMMUNICATIONS BETWEEN THE PARTIES WITH RESPECT TO THE SUBJECT MATTER HEREOF.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year first above written.

WITNESSES:

[Signature]
[Signature]

WITNESSES:

[Signature]
[Signature]

Louisiana Gene Therapy Research Consortium, Inc

By: [Signature]

Steve Moye, President & CEO

Louisiana Board of Regents

By: [Signature]

Donald J. Vandal, Project Director

By: [Signature]

Dr. Sally Clausen, Commissioner of Higher Education

APPROVED

NOV 14 2008

APPROVED
 Office of the Governor
 Office of Contractual Review

FEB 18 2009

[Signature]
 DIRECTOR

EXHIBIT "A"
COMPREHENSIVE BUDGET

	<u>Research Programs</u>					
	LSUHSC NO	Tulane HSC	LSUHSC Shreveport	Education Program	Central Admin	Total LGTRC
<u>SOURCES OF FUNDS</u>						
State Grant - Operating	805,538	774,474	591,384	95,087	399,731	2,666,214
State Grant - Collaboration	133,334	133,333	133,333	-	-	400,000
TOTAL SOURCES OF FUNDS	938,872	907,807	724,717	95,087	399,731	3,066,214
<u>USES OF FUNDS</u>						
Salaries & Related Expenses	435,102	749,272	572,185	54,914	205,695	2,017,169
Professional Services	145,000	10,000	15,000	-	50,000	220,000
Operating Services	-	-	37,000	4,350	32,000	73,350
Supplies	267,769	148,535	92,532	2,823	21,000	532,659
Travel & Meetings	3,000	-	8,000	3,800	25,000	39,800
Other Charges	88,000	-	-	29,200	41,036	158,236
Equipment/Acquisitions	-	-	-	-	25,000	25,000
TOTAL USES OF FUNDS	\$938,871	\$907,807	\$ 724,717	\$ 95,087	\$399,731	\$3,066,214
NET SOURCES/USES OF FUNDS	-	-	-	-	-	-

EXHIBIT "B"

LGTRC PERFORMANCE MEASURES

- Numbers of faculty and staff employed through Consortium efforts
- Numbers of publications and presentations
- Increase in external funding for research
- Numbers of research projects
- Numbers of Pre-Clinical and Clinical Trials
- Numbers of patent applications
- Numbers of start-up companies
- Number of educational initiatives (i.e., workshops, internships, seminars, public forums)

The following pages lists annual performance measures for the LGTRC components

LSUHSC-NEW ORLEANS
Goals & Objectives

- Strategies**
- I. To develop the Program into an international leader in the development of preventives and therapies for human disease based on gene delivery
 - II. To enhance the development of the biotechnology sector in Louisiana
 - III. To create knowledge-based jobs and provide an information and educational resource Louisiana's citizens

Goals	Objectives	Indicators
Increase critical mass of cutting-edge pre-clinical and clinical research	Recruit one new Faculty (Asst or Assoc Prof) with expertise in translational research	New faculty member in place
	Faculty Development	Hold Program scientific retreat/meeting; continued enhancement of in-house seminar program; award of 2 intramural clinical research pilot grants; intramural funding for graduate student support.
	Development of intra-Program and intra-institutional translational research towards clinical trials	2 intramural/clinical research grants projects underway; compete for 2 LSUHSC institutional translational research awards; submit 2 new collaborative grants to Federal (NIH) and/or State funding agencies; develop linkages with CTSE or equivalent in New Orleans.
	Continue to enhance research collaborations with LGTRC partner institutions	Development of new collaborative projects with Consortium partners; submission of 1 new collaborative Project Grant; annual scientific meeting of consortium partners; development of shared seminar program with LSU-S through video conferencing.
Increase critical mass of cutting-edge pre-clinical and clinical research (cont.)	Continue to enhance research collaborations with non-Consortium institutions	Development of 1 new collaborative project with non-Consortium institutions.
	Continue to obtain external (Federal) funding to support pre-clinical and clinical research programs	At least 1 new Federal award, submission of 5 new external grant applications.
Develop industrial/biotech linkages	Enhance research collaborations with industry	At least 1 industry-sponsored research project, at least 1 patent submission.
Development and Expansion of Core and Specialist Laboratory Facilities	Expand use of Core facilities	Increased use of Cores by Consortium partners; non-Consortium researchers and industry (recharge).

	Development of BSL-3 containment facility for GT projects involving class 3 restricted pathogens	BSL3 facility functional for pre-clinical development of GT/vaccine development projects requiring BSL 3 level containment.
Educational Activities and Service to Community	Faculty contribution to courses, lectures and tutorials in Medicine, Microbiology & Immunology, Genetics	Development and presentation of course "Molecular Medicine and Disease" to graduate students and MD fellows; Faculty presentation of at least 10 hours of instruction in classes in medicine and basic science departments.
	Graduate student training	Faculty training of at least 5 graduate (PhD) students.
	Postgraduate training	Faculty training of at least 5 postdocs.
	Faculty contribution to scientific community at National level	Service on at least 2 NIH Study Sections; peer review multiple scientific articles for learned journals.
	Outreach	Faculty training of 2 summer students (undergraduate or high school level).

LSUHSC-NEW ORLEANS COLLABORATIVE PROJECTS

Objective

Expand the gene therapy research program at LSUHSC-New Orleans to initiate and maintain collaborative projects with the other Consortium institutions.

Initiatives**Proposed Goals****Outcome Measurements**

**Develop Research Collaborations
Between Consortium Partner
Institutions**

**Initiate Joint Research Projects with
Tulane University HSC and
LSUHSC-Shreveport**

**Provide seed funding for at least 1 new
collaborative project**

**Support graduate students and/or postdocs
through collaborative projects**

**At least 2 research abstracts and/or publication
or grant submissions arising from collaborative
projects**

**Develop and plan annual LGTRC research
function for FY 2009**

TULANE CENTER FOR GENE THERAPY
Goals and Objectives

Objectives:

- Make the Center a world leader in research on new therapies of important human diseases using genes and adult stem cells.
- I. adult stem cells.
 - II. Increase the number of knowledge-based jobs in Louisiana.
 - III. Carry out educational programs on gene and adult stem cell therapies.
 - IV. Address any social or ethical issues arising from gene and adult stem cell therapies.

Initiative	Proposed Goals	Outcome Measurements
Develop New Therapies Preclinical	New methods for preparing, characterizing and gene engineering adult stem cells (ASCs) from human, non-human primate & rodent marrow.	Two publications & 2 presentations at international meetings.
	New methods for measuring engraftment of ASCs in animals.	One publications and 1 presentation at international meetings.
	Test effectiveness of ASCs in mouse/rat models for:	Three publications and 3 presentations at international meetings.
	Test effectiveness & toxicity of ASCs in non-human primate as models for: Genetic diseases of brain (Krabbe disease)	Two publications and 2 presentations at international meetings.
	Prepare, and distribute standardized preparations of ASCs for preclinical trials by other investigations at other institutions in Louisiana, other states, & other countries	Receive about \$900,000 (D as NIH grants

Initiative	Proposed Goals	Outcome Measurements
<p>Clinical</p> <p>Explore clinical potential of using ASC in various diseases, including renal, cardiac and metabolic diseases</p>	<p>Explore collaborations for Phase I Clinical Trial with ASC</p> <p>Begin production of ASCs in Pilot GMP facility</p> <p>Develop protocols for clinical trial with ASCs.</p>	<p>Prepare Interim Report</p> <p>Produce 10 custom preparations</p> <p>Prepare IND application</p>
<p>Increase Jobs In Louisiana Center Staff</p> <p>Increased Jobs</p>	<p>Recruit new Director and faculty. Replace staff when necessary.</p> <p>Continue discussions with biotech start-ups for clinical trials.</p>	<p>Faculty of 7 and total staff</p> <p>Add new academic agreements</p>
<p>Educational Programs</p> <p>M.D. program</p> <p>Ph.D. programs</p>	<p>Provide lectures & tutorials as requested by Departments of Biochemistry, Microbiology, Pharmacology, Genetics, and Medicine.</p> <p>Provide lectures, journal clubs and research training for 10 graduate students per year.</p>	<p>About 4 lectures</p> <p>Graduate 2 Ph.D. students</p>

Initiative	Proposed Goals	Outcome Measurements
Postdoctoral program	Provide research training to 5 Ph.D and M.D. graduates per year.	Complete training of 3 postdoctoral fellows.
Technical staff	Provide training in research for 10 technical staff each year.	
High school students, teachers, and members of the community	Conduct tours of the Center with lectures by the staff.	Two tours
	Faculty appear as requested for interviews on television, radio, and press.	Five appearances
Medical school and university committees	Service on committees for medical school admission, graduate school admission, PhD, theses, space allocation, animal care, human experimentation, and recruitment of faculty.	Faculty serve on 8 committees
External Services	Membership on NIH review committees, editorial boards, and journal reviews.	Three NIH committees, 3 editorial boards, & 25 reviews of manuscripts.

TULANE UNIVERSITY COLLABORATIVE PROJECTS

Strategy

Expand the gene therapy research program at Tulane to initiate collaborative projects with the other Consortium institutions.

Goals

Develop Research Collaborations Between Consortium Partner Institutions

Objective

Continue Joint Research Projects with LSUHSC-New Orleans, LSUHSC-Shreveport and LSU-Pennington, Baton Rouge

Initiate new joint research projects with LSUHSC-New Orleans, and LSUHSC-Shreveport.

Indicators**With LSUHSC-NO:**

Continue Lentivirus collaborations with LSUHSC-NO; namely, use of novel lentivirus vectors for MSC transduction, and exploration of therapeutic uses of MSC in lung inflammation. Continue to manufacture, characterize and provide adult stem cells for colla

With LSUHSC-Shreveport:

Continue collaborations to isolate and culture hamster stem cells. Continue ischemia reperfusion studies in liver. Continue evaluation of cancer model using MSC as viral carriers

Develop and plan annual LGTRC research day for FY 2009

**LSUHSC-Shreveport
Goals & Objectives**

Objective	Expand the gene therapy research program at LSUHSC-Shreveport to be commensurate with programs at other Consortium institutions.	
Initiatives	Proposed Goals	Outcome Measurements
Develop Clinical Research	Develop Clinical Research Core Facility	Plan for operations of Clinical Research Unit in LSUHSC-S Hospital
	Develop intra-institutional translational research towards clinical trials	Implement intramural clinical research grant program. Hold scientific retreat involving all Faculty/Research Groups; enhance in-house seminar program Submit collaborative grants to Federal (NIH) and State funding agencies
	Increase research collaborations with industry	Add one industry sponsored clinical research gene therapy trial
Develop Basic Research	Increase critical mass	Recruit one new faculty member
	Develop new faculty members	Provide grant writing expertise/support Each new investigator expected to submit one major extramural grant
	Expand intramural collaborations	Provide one intramural grant emphasizing collaboration among non GT members Support and plan annual mini-symposium
	Expand collaborations with other Consortium Institutions	Develop at least one new collaborative project each with Tulane and LSUHSC-NO Provide seed funding for new collaborative projects Develop and plan annual LAGTRC research day for FY 2009
	Develop industry ties	Add one new industry collaboration
	Increase extramural funding	Each unfunded investigator expected to submit one major extramural grant

Initiatives	Proposed Goals	Outcome Measurements
Expand core facilities	Expand animal imaging core	Leverage with BRF to provide seed funding for new imaging projects Develop use of microPET/SPECT/CT system Provide GT research seminars for Departments to advertise core facility
Commercialize intellectual property	Move GT technology currently being researched to industry	Continue to commercialize intellectual property

**LSUHSC-Shreveport
Collaborative Projects**

Objective:

Expand the gene therapy research program at LSUHSC-Shreveport to be commensurate with programs at other Consortium institutions.

Initiatives

**Develop Basic Research Collaborations
Between LSUHSC-S and Other Member
Institutions**

Proposed Goals

**Initiate Joint Research Projects with
Tulane University HSC and LSUHSC-
New Orleans**

Outcome Measurements

**Provide seed funding for new
collaborative projects**

**Submit one scientific abstract
from each collaborative
project to a major scientific
meeting**

**Support one graduate student
for each new collaborative
project**

**Develop and plan annual
LGTRC research day for FY
2009**

**Submit one manuscript from
each collaborative project to a
scientific journal**

Education Goals & Objectives

Objectives: To develop the Program into an international leader in the development of educational material about human gene delivery
 To enhance the development of the biotechnology sector in Louisiana
 To provide an information and educational resources for the citizens of Louisiana

Goals and Actions

Performance Indicators

Support Louisiana students with opportunity to participate in gene therapy research

Provide students with an opportunity to participate in research and to expand their concepts of scientists

Conduct a summer research project under the supervision of a gene therapy researcher

Present results at the end of the summer at a forum hosted for all the students and mentors

Conduct an in-service high school teacher workshop

Provide education on gene therapy through high school teachers in their classroom instruction

Follow up evaluation on those teachers who participated to determine the impact this new information has on their teaching

Participating teachers will identify students who are interested in research experiences

Provide high school outreach program for students throughout the state

Teach students about genetics, cancer and gene therapies

Pre and post experience evaluations of students

Provide students with hands on lab activities (PCR) related to genetics and gene therapy

Performance on the Advanced Placement Biology National exam

Increase outreach to underrepresented minority schools in both rural and urban areas

Tracking of minority student participants' career choices and employment

Work with community group to: provide after school science club at New Orleans High Schools

Track career course of student participants

Conduct a community college faculty workshop on gene therapy and stem cell:

Teach faculty about the latest advancements in genetics, gene therapy and stem cell research

Pre and post evaluation of knowledge, attitudes and practices among college faculty

Make college faculty aware of the variety of research opportunities available for students

Follow up assessment of how faculty use the information in their classroom teaching

Provide faculty with information on career opportunities for students

Act as point of contact for graduate students for employment and educational opportunities

Work with Delgado Community College on their research support staff training program

Track employment choices and provide apprenticeship opportunities to graduates of the program.

Louisiana Gene Therapy Research Consortium

Comprehensive Budget

Funding Entity: Board of Regents

Fiscal Year 09-10

	Research Programs					Total LGTRC
	LSUHSC NO	Tulane HSC	LSUHSC Shreveport	Education Program	Central Admin	
SOURCES OF FUNDS						
State Grant - Operating	733,040	704,771	538,159	86,530	363,755	2,426,255
State Grant - Collab/CF	121,333	121,333	121,333	-	45,195	409,195
TOTAL SOURCES OF FUNDS	854,373	826,104	659,492	86,530	408,950	2,835,450
USES OF FUNDS						
Salaries & Related Expenses	422,983	564,843	154,997	51,307	251,874	1,446,005
Professional Services	4,500	10,000	8,842	-	53,000	76,342
Operating Services	85,007	30,000	60,000	-	54,000	229,007
Supplies	289,883	221,261	420,853	1,498	7,351	940,646
Travel & Meetings	2,000	-	15,000	-	7,400	24,400
Other Charges	50,000	-	-	33,725	35,325	119,050
Equipment/Acquisitions	-	-	-	-	-	-
TOTAL USES OF FUNDS	\$ 854,373	\$ 826,104	\$ 659,492	\$ 86,530	\$ 408,950	\$ 2,835,450
NET SOURCES/USES OF FUNDS	-	-	-	-	-	-

LGTRC Proposed Budget
Funding Source: BOR
FY09-10

FY09-10

Budget by Program